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AT&T

Michael F. Del Casino
Regulatory Division Manager

Suite 1000
1120 20th Street, N.W.
Washington, DC 20036
202 457-2023
FAX 202 457-2165

April 27, 1999
FINAL

Mr. Dale Hatfield
Chief, Office of Engineering and Technology
Federal Communications Commission
2000 M Street NW, Suite 480
Washington, DC 20554

Dear Mr. Hatfield:

As required by Part 63.100(a) of the Commissions Rules, AT&T hereby files its Final Service Disruption Report for an AT&T network outage.

1. DATE / INCIDENT LOCATION TIME:

April 2, 1999, 10:25 AM MST

2. GEOGRAPHICAL AREA AFFECTED:

Northwestern United States

3. CUSTOMERS AFFECTED (APPROXIMATELY):

43,225 (based on blocked calls)

4. TYPES OF SERVICES AFFECTED:

Toll Access, Toll Completing and OSPS

5. DURATION OF OUTAGE:

One Hour

6. BLOCKED CALLS:

129,674

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7A. CAUSE OF INCIDENT:

The root cause of this outage was isolated to defective bridging amps on a newly established restoration span from Missoula, MT – Spokane, WA. This restoration route had been established the previous week to protect service due to possible flooding in the area.

7B. EQUIPMENT NAME / TYPE:

Fiber Optic Cable

7C. PART OF NETWORK:

Missoula, MT – Spokane, WA

8. RESTORATION METHODS:

From initial detection of the failure, all service was restored within one hour by rolling the receive end of the restoration back to the original facility route. The bridging amps were replaced following subsequent alarm history indications of intermittent bridging amp failures.

9. STEPS TO PREVENT REOCCURRENCE:

The Network Maintenance Restoration Process will be reviewed by AT&T for process improvement opportunities. Improvements are being pursued that will assist in quickly identifying non-standard logical and physical restorations along with the associated pre-plans for service restorations.

The defective bridging amps have been returned to the manufacturer to have a failure mode analysis performed. AT&T will be provided with a written report of the manufacturer's findings and recommendations.

10. APPLICABLE BEST PRACTICES:

AT&T has reviewed SECTION D – DIGITAL CROSS-CONNECT SYSTEMS in the **Network Reliability: A Report to the Nation, June 1993.** Based on the root cause of this outage, AT& is in complete support of the following countermeasures and best practices to prevent future incidents.

6.4 Hardware
6.4.1 Matrix, Controller and Disk Drive Failures

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a. Recommendation to all equipment suppliers that they critically review the level of inspection and surveillance on critical DCS components (i.e. matrix cards, bridging cards, sync cards, disk drives, and controllers) and do aggressive root cause analyses of all field failures.

b. Recommendation to all service providers to have sufficient spares of critical DCS components readily available to minimize downtime. (i.e. matrix cards, bridging cards, sync cards, disk drives, and controllers, etc.)

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Sincerely,